



Virtualization Station 3.5

Virtual machine live migration ensures
smooth service and application performance



Problems by IT using virtual machine services

Virtual Machine service
is too slow

The virtual machine service
automatically stops running

Virtual Machine service
is unstable

Virtual machine service
security issues



IT maintenance process

Shutdown → Test Online → Shutdown again → Online

Update Firmware

Hardware device reboot

Update Hardware Device

Find issue Root Cause and test service

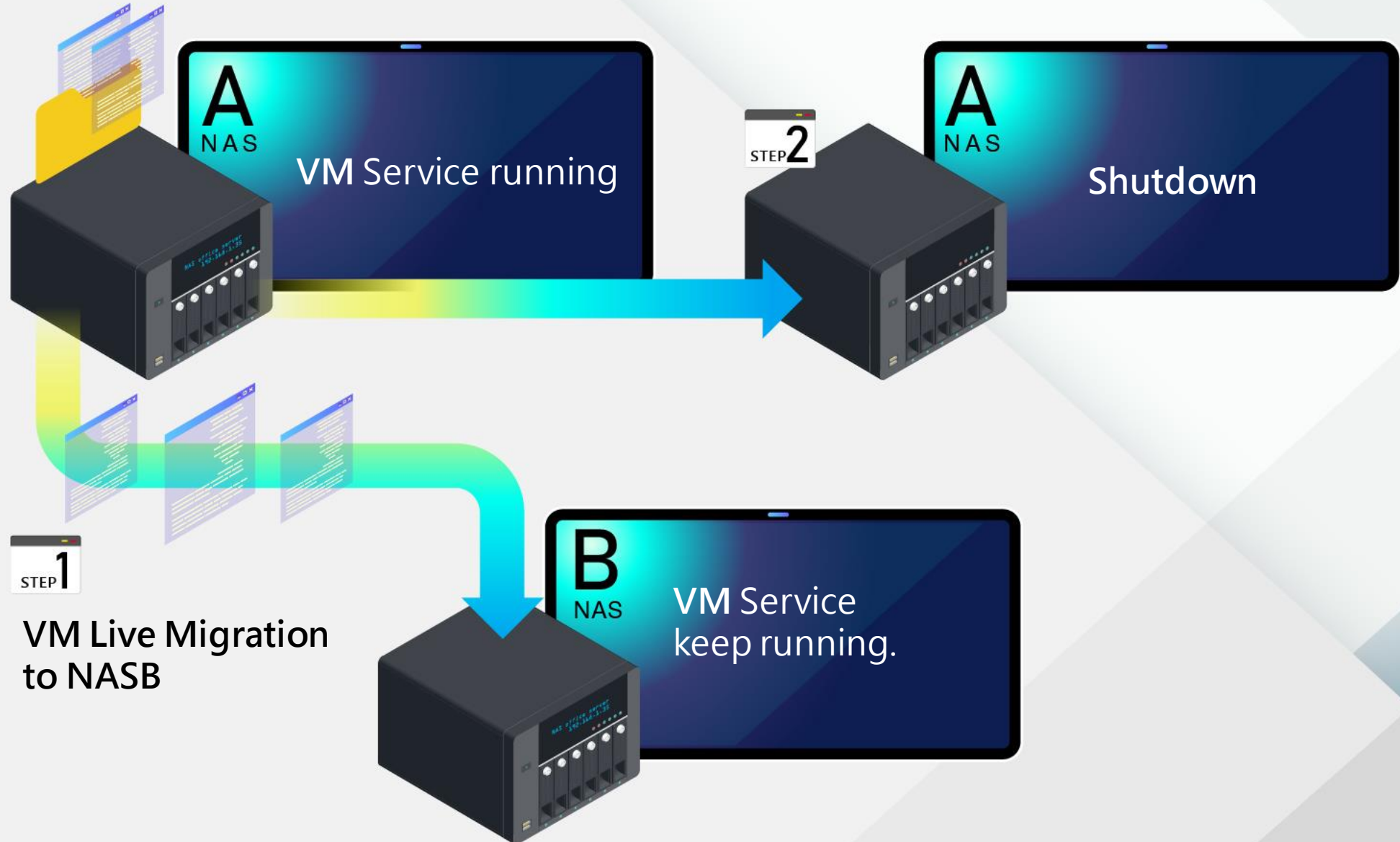
Switch to other hardware devices



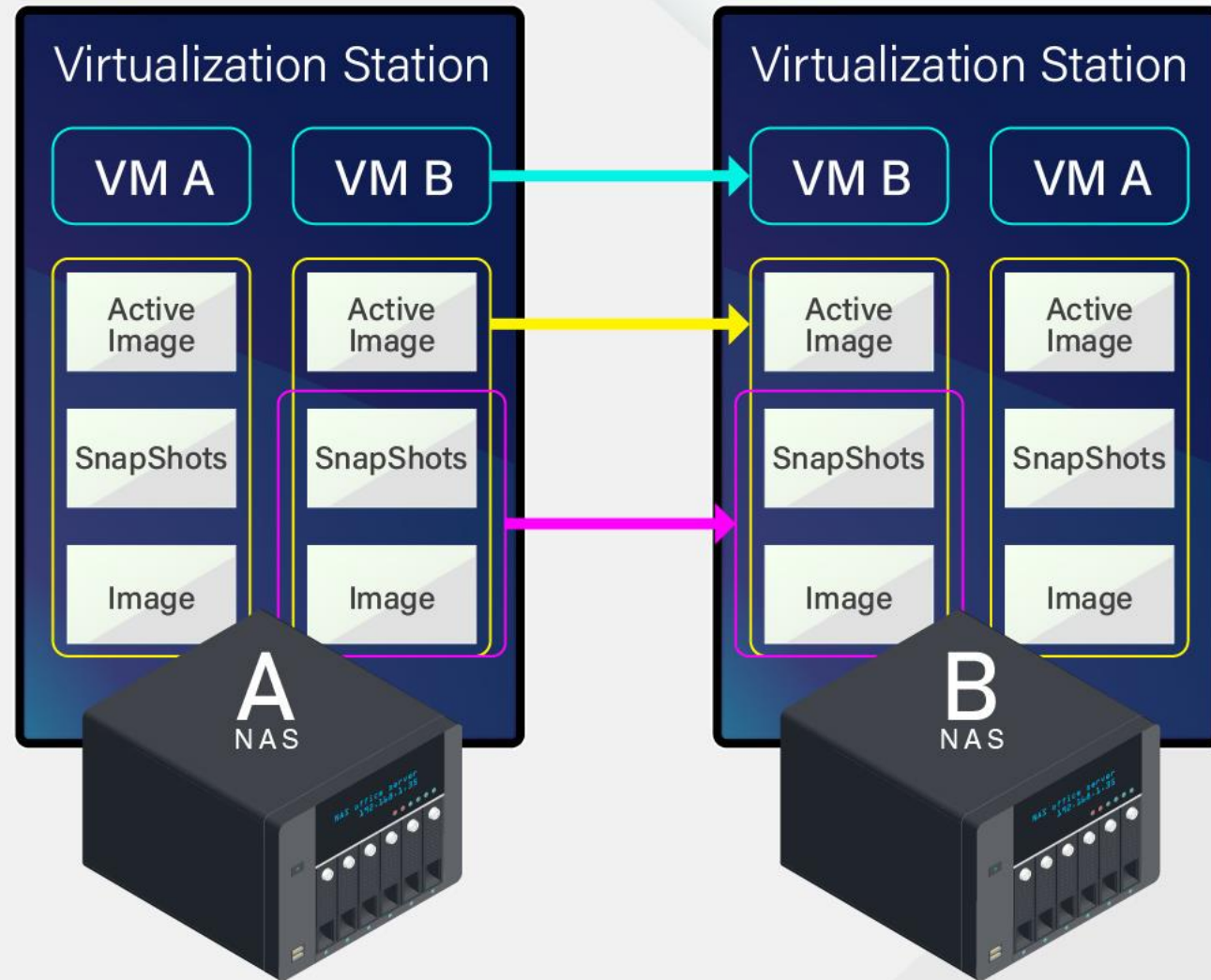
Can the VM service
run smoothly during
IT maintenance?



The VM Live Migration make IT maintenance more flexible



VM Live Migration Architecture



One NAS can do "Migrate in "and "Migrate out"

The screenshot displays the Virtualization Station 3 interface. The top navigation bar includes buttons for 'Try a free Windows® VM', 'Create', 'Import', and 'Migrate'. The 'Migrate' button is highlighted with a red box. Below this, a table lists three VMs: 'CalvinMa test', 'Win10_Test', and 'Windows 2016 Migration'. Each VM row has a 'Migrate' icon in the bottom toolbar, which is also highlighted with a red box. Two red callout boxes with arrows point to these icons: 'VM Migrate in' points to the top 'Migrate' button, and 'VM Migrate out' points to the 'Migrate' icon in the 'Win10_Test' row.

Name	CPU	Memory	HDD Image (size)	Volume (Used/ Capacity)	Network	USB Device
CalvinMa test	11% 2 cores	25% 4 GB	/Public/CalvinMa test .img (19.6GB)	DataVol1 (108GB/ 296GB)	Virtual Switch 1	
Win10_Test	0.8%	13% 2 GB	/Public/Win10_Test.img (21.6GB)	DataVol1 (108GB/ 296GB)	Virtual Switch 1	
Windows 2016 Migration	0.9% 2 cores	25% 4 GB	/Public/Windows 2016.img (17.1GB)	DataVol1 (108GB/ 296GB)	Virtual Switch 1	

Simple UI operation in three steps to complete VM Live Migration

Migrate VM to Destination Device

STEP 2

Destination Device | Storage Migration Method | VM Settings | Summary

Specify a method to migrate the virtual disks from source device to destination device.

- Move all disk images to the same folder
This option allows you to specify a storage location so that all disk images of the virtual machine can be moved there.
- Specify destination for each disk images
This option allows you to specify a storage location for each disk image of the virtual machine.

Migrate VM to Destination Device

STEP 1

Destination Device | Storage Migration Method | VM Settings | Summary

You can migrate a virtual machine and its disks to another QNAP device. Specify a remote device to be the destination device to migrate a virtual machine to.

Destination Device:

Credentials: 172.17.30.186

Destination Information:

Virtualization Station:	✓ 3.5.0
Processor:	✓ Intel(R) Core(TM) i3-7100 CPU
Logical Cores:	✓ 4
System Memory:	✓ 8 GB
VM Configurations:	✓ Compatible

Note:

Cancel Next

Migrate VM to Destination Device

STEP 3

Destination Device | Storage Migration Method | VM Settings | Summary

Configure the virtual machine and the destination location of its disks based on your specific needs and preferences.

VM Name: Windows 2016

Storages:

Migration Method: Move all disk images to the same folder

Destination: /Public [Browse](#)

Networks:

Adapter 1

Virtual Switch: Virtual Switch 1 (172.17.30.186 / -)

Console Setting:

VM Console Port (optional): 5900 (5900 - 5930)

Cancel Back Next

VM Live Migration advantages and benefits

Advantage

- Virtual machine live migration ensures smooth service

Benefits

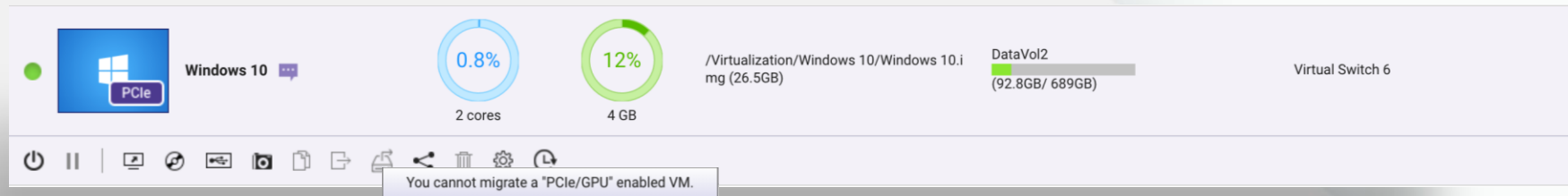
- It can achieve the effect of IT maintenance without affecting the user's use of the services on the virtual machine
- IT can flexibly maintain hardware and firmware upgrades and repairs, or periodically restart operations.
- Business operations will not be affected by IT maintenance.
- You don't need the same NAS model, the same number of hard drives and slot locations, you only need to correspond to the same CPU platform (Intel&Intel /AMD&AMD) to use.

VM Live Migration



Considerations-1

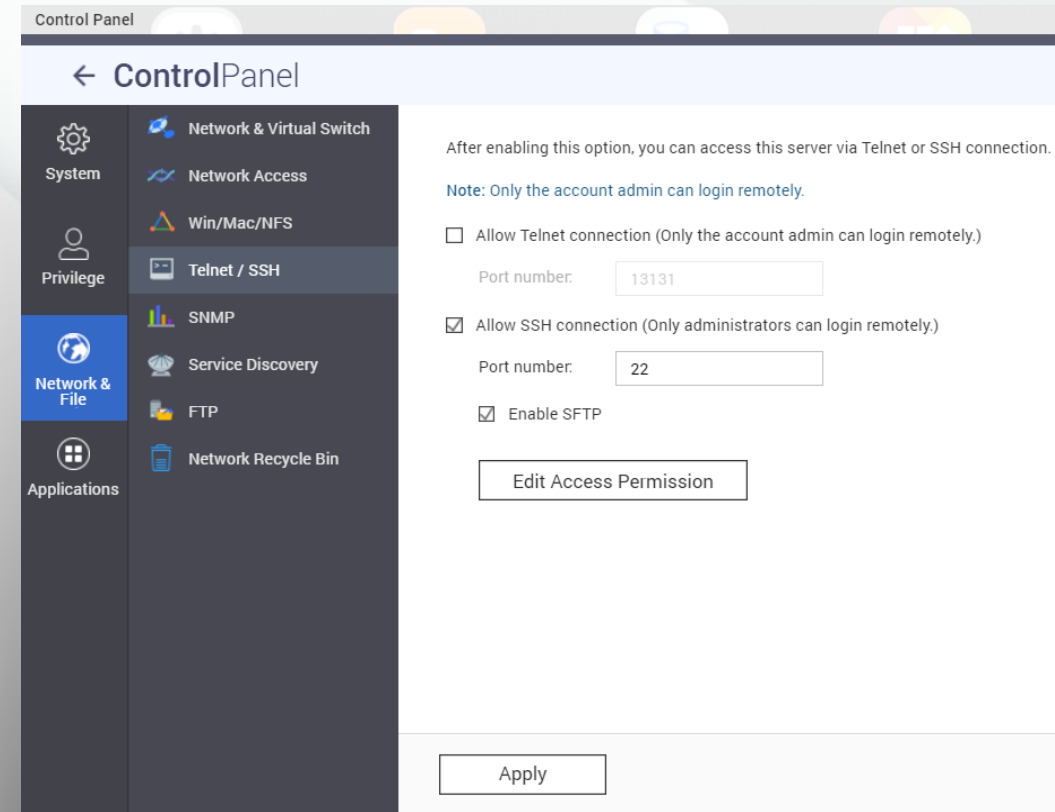
- If the VM uses the Device Passthrough (PCIe/Blu-ray) function, live migration cannot be used.
 - Because the physical device used by the original VM was live migrated, the original physical device ID will not be recognized when the VM is migrated to the new NAS.



- VM Live Migration function support models only support the same platform model of X86 architecture
 - Intel platform NAS VM Live Migration to Intel platform NAS
 - AMD platform NAS VM Live Migration to AMD platform NAS
- Virtualization Station 3.5 is only compatible with QTS 4.5.1 or later version.

Considerations-2

- VMs exported from Virtualization Station 3.5 are only compatible with Virtualization Station 3.5 and later versions.
- Secure shell (SSH) service is required to migrate VMs. Ensure that SSH is enabled in "Control Panel > Network & File Services > Telnet / SSH" to prevent migration failure.
- Ports 16500-16550 are required for VM migration. Ensure that these ports are not blocked to avoid migration failure.





Virtualization Station 3.5

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